IN THE SPECIFICATION

Please amend the paragraph at page 24, line 18 through page 25, line 26 as follows:

As shown in Fig. 6, in a fuel cell system 105 according to a first modification of the second embodiment of the present invention, an air tank 100 is coupled to an upstream side of the CO gas removal apparatus 14. The air tank 100 is separated into a first chamber 100A and a second chamber 100B by use of a partition 100C. For the partition 100C,a piston and a diaphragm can be used. The first chamber 100 houses a gas and the second chamber 100B houses air therein. A pipe [[102]] 1020 is coupled to a side of a lower part of the second chamber 100B. The pipe [[102]] 1020 is coupled to a variable conductance valve 111 at its downstream side and a pipe [[102]] 1020 coupled to a pipe 33 is coupled to a downstream side of the variable conductance valve 111. A pipe [[103]] 1030 is coupled to the other side of the lower part of the second chamber 100B, which is opposite to the side coupled to the pipe [[102]] 1020. A variable conductance valve 112 is coupled to an upstream side of the pipe [[103]] 1030, and a fourth pump [[105]] 115 is coupled to an upstream side of the variable conductance valve [[12]] 112 via a pipe [[104]] 1040. The fourth pump [[105]] 115 pumps air from the outside. A pipe [[105]] 1050 is coupled to an upper part of the first chamber 100A. The pipe [[105]] 1050 branches off to be pipes [[106]] 1060 and [[107]] 1070. At a downstream side of the pipe [[106]] 1060, a variable conductance valve 113 releasable to the atmosphere is located. An upstream side of the pipe [[107]] 1070 is coupled to a pipe 108 via a variable conductance valve 114. The pipe 108 is coupled to the upside of the fuel tank 11. Note that, in Fig. 6, CO gas removal catalyst such as the partial oxidation catalyst for removing CO gas in hydrogen rich gas by contacting with oxygen is housed in the CO gas removal apparatus 14. Between a pipe 34 coupled to an exit side of the CO gas removal apparatus 14 and a pipe 34A coupled to an entry side of the fuel electrode 15a, a conductance control valve 26 is coupled. Points other than the above are approximately the

same as those of the fuel cell system 104 shown in Fig. 5, and thus, description thereof will be omitted.

Please amend the paragraph at page 26, line 4 to page 27, line 20 as follows:

First, the variable conductance valves 20, 62 to 64, 112 and 113 are closed, and the variable conductance valves 61, 63, 114 and 111 are opened. Accordingly, the fuel (DME) is actively supplied to the pipes 55 and 108 by the saturated vapor pressure of the fuel contained in the fuel tank 11. The fuel supplied to the pipe 108 is supplied to the first chamber 100A through the variable conductance valve 114 and the pipes [[107]] <u>1070</u> and [[105]] <u>1050</u>. The partition 100C is moved and pressurized to the second chamber 100B by the fuel pressure acting on the first chamber 100A. As a result, the air in the second chamber [[70B]] <u>100B</u> is pushed out to the pipe [[102]] <u>1020</u>. Meanwhile, the fuel supplied to the pipe 55 is supplied to the first chamber 60A through the variable conductance valve 61 and the pipe 56. The partition 60C is pushed to the second chamber 60B side by the fuel pressure acting on the first chamber 60A. As a result, the water in the second chamber 60B is introduced into the vaporizer 12 through the pipes 58 and 59 and the variable conductance valve 63. The water introduced into the vaporizer 12 becomes water vapor and is introduced into the reformer 13 through the pipes 32 and 31. Subsequently, the variable conductance valves 63 and 20 are opened, the fuel in the fuel tank 11 is supplied to the pipe 31 while controlling the conductance, and the fuel is mixed with the water vapor. In this event, a mixture ratio of DME as the fuel to the water vapor is controlled by the variable conductance valves 20 and 63 so as to be a mole ratio of 1:4. Next, the fuel and the water vapor are introduced into the reformer 13 from the pipe 31. In the reformer 13, by proceeding the reaction of the equation (1) by use of Cu-Zn catalyst, hydrogen rich gas, in which some amount of CO is contained, is generated. Subsequently, the hydrogen rich gas obtained in the reformer 13 is supplied to the

pipe 33. The hydrogen rich gas supplied from the reformer 13 and the air are mixed and supplied to the CO gas removal apparatus 14. Note that, in order to return the partition 100C pushed to the second chamber side to its initial position, the air may be supplied from the fourth pump 115 into the second chamber 100B in the state where the variable conductance valves 111 and 114 are closed and the variable conductance valves 112 and 113 are opened. The CO gas removal apparatus 14 houses a partial combustion catalyst to oxidize CO to CO_2. The method after the above is approximately the same as the method for using the fuel cell system 104 shown in Fig. 5.